

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 April 2005 (28.04.2005)

PCT

(10) International Publication Number
WO 2005/038821 A2

(51) International Patent Classification⁷:

G21K

(74) Agent: SCHEINBERG, Michael, O.; P.O. Box 164140, Austin, TX 78716-4140 (US).

(21) International Application Number:

PCT/US2004/034984

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 16 October 2004 (16.10.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2003905709 17 October 2003 (17.10.2003) AU

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicants (for all designated States except US): FEI COMPANY [US/US]; 5350 NE Dawson Creek Drive, Hillsboro, OR 97124-5793 (US). AUSTRALIAN NATIONAL UNIVERSITY [AU/AU]; Canberra, Australian Capital Territory 0200 (AU).

(72) Inventors; and

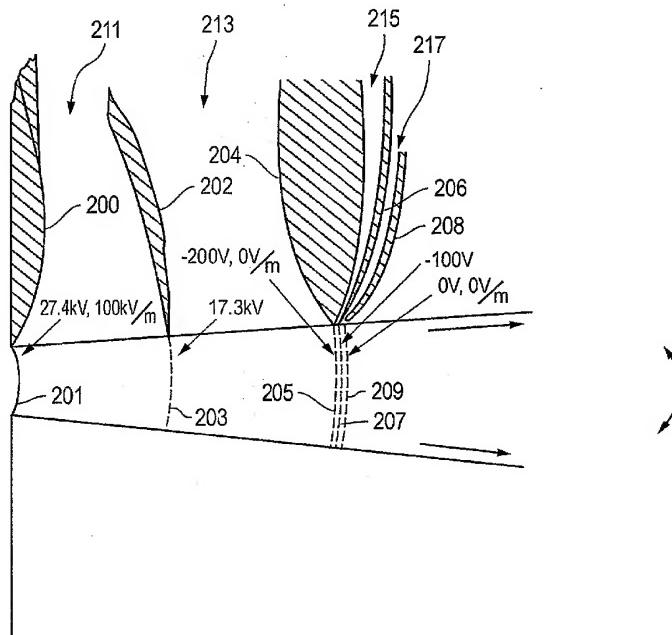
(75) Inventors/Applicants (for US only): BOSWELL, Rodgerick [AU/AU]; -, 17 Wongoola Close, O'Connor, Australian Capital Territory 2617 (AU). SUTHERLAND, Orson [AU/AU]; 5 Ligertwood Street, Evatt, Canberra, Australian Capital Territory 2617 (AU).

Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: CHARGED PARTICLE EXTRACTION DEVICE AND METHOD OF DESIGN THERE FOR



WO 2005/038821 A2

(57) Abstract: The present invention provides a method for extracting a charged particle beam from a charged particle source. A set of electrodes is provided at the output of the source. The potentials applied to the electrodes produce a low-emittance growth beam with substantially zero electric field at the output of the electrodes.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.